

6The opinion in support of the decision being entered today was not written
for publication and is not binding precedent of the Board.

Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DONALD K. WRIGHT,
CHRISTOPHER L. PEMBERTON
and JAMES K. HANKINS

Appeal No. 2003-0068
Application No. 09/415,696

HEARD: June 10, 2003

Before ABRAMS, STAAB, and BAHR, Administrative Patent Judges.

STAAB, Administrative Patent Judge.

MAILED

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**PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES**

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1, 4-10, 18 and 19. Claims 2, 3, 11, 12 and 20 have been canceled. Claims 13-17 and 21, the only other claims currently pending in the application, have been withdrawn from consideration pursuant to 37 CFR

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§ 1.142(b) as not being readable on the elected invention. The amendment after final rejection filed February 19, 2002 (Paper No. 12) has been entered.

Appellants' invention pertains to a reclosable fastener profile assembly (claims 1, 4-10 and 19) and to a reclosable storage bag comprising a reclosable fastener profile assembly (claim 18).

The references cited against the claims in the final rejection are:

Van Erden et al. (Van Erden)	4,589,145	May 13, 1986
Tilman (Tilman '537)	5,024,537	Jun. 18, 1991
Tilman (Tilman '689)	5,071,689	Dec. 10, 1991

Claims 1, 4-10, 18 and 19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Van Erden.

Claims 1, 4-10, 18 and 19 stand further rejected under 35 U.S.C. § 102(b) as being anticipated by Tilman '537.

Claims 1, 4-10, 18 and 19 stand still further rejected under 35 U.S.C. § 102(b) as being anticipated by Tilman '689.

Reference is made to appellants' main and reply briefs (Paper Nos. 18 and 20) and to the examiner's final rejection and answer (Paper Nos. 10 and 19) for the respective positions of appellants and the examiner regarding the merits of these rejections.¹

¹Appellants also rely on two declarations made by inventors Donald K. Wright and Christopher Pemberton on April 15, 2002 (filed as attachments to Paper No. 16) in support of their position that the appealed claims are patentable over the cited references.

DISCUSSION

I. Claim Grouping

At the outset, we observe that appellants' arguments are directed to only claim 1. Since appellants have not argued claims 4-10, 18 and 19 with any reasonable degree of specificity apart from claim 1, we will decide this appeal on the basis of claim 1, with claims 4-10, 18 and 19 standing or falling therewith. *See In re Young*, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); *In re Wood*, 582 F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978).

II. Claim 1

Claim 1 reads as follows (with emphasis added):

1. A reclosable fastener profile assembly, said assembly comprising:

a continuous supply of a first profile strip including at least one rib that extends from the surface of said first strip;

a continuous supply of a second profile strip opposite said first strip; said second strip including at least two ribs that extend from the surface of said second strip; said rib of said first strip and said ribs of said second strip adapted to sealingly engage and maintain an airtight seal when so engaged; and

a compression molded segment seal portion fusing said first profile strip, said second profile strip and said ribs of said first profile strip and said second profile strip; *said compression molded segment seal including a fused section of said first and second profile strips formed through the application of heat and pressure; said fused section substantially flattened to form an airtight seal of said first and second profile strips, without distorting said ribs of said first and second profile strips*

outside of said fused section, thereby maintaining said airtight seal of said first and second profile strips when interlocked.^[2]

III. The Anticipation Rejection Based on Tilman '689

We take up first for consideration the anticipation rejection of claim 1 based on Tilman '689.

Tilman '689 pertains to "an extruded plastic zipper structure comprising a continuous series of predetermined length zipper sections, and hinges connecting the zipper sections together so that the sections can be fan-folded upon one another" (abstract). The hinges connecting the zipper sections are formed by spot sealing means 19, which comprises a pair of heated complementary cooperating sealing heads 20 (col. 2, lines 64-66). Tilman '689 further explains (col. 3, lines 3-30):

In any event, in each sealing cycle the sealing means 19 seals^[3] a combination end seal^[4] and hinge 21 connecting the adjacent ends of the straight zipper assembly sections 22. As will be observed, the hinge area 21 in each instance is desirably of a sufficient thinness and extent or length between the adjacent ends of the connected

²The italicized portion of claim 1 was added by amendment during prosecution (see the amendment filed February 19, 2002 (Paper No. 12). Appellants' specification does not provide clear and antecedent basis for this portion of claim 1 as required by 37 CFR § 1.75(d)(1). Specifically, the specification does not state that the compression molded segment seal, as opposed to the interlocked ribs of the first and second profile strips, forms an *airtight* seal, as now claimed. In addition, the specification does not state that the molded segment seal is formed *without distorting the ribs outside the fused section*, also as now claimed. In the event of further prosecution, the examiner may wish to consider whether there is descriptive support in appellants' original disclosure, as required by the first paragraph of 35 U.S.C. § 112, for these newly added claim limitations.

³We note that the verb "seal" may mean "to close hermetically." Webster's II New Riverside University Dictionary, copyright © 1984 by Houghton Mifflin Company.

⁴We note that the noun "seal" may mean "an airtight or watertight closure." Webster's II New Riverside University Dictionary, copyright © 1984 by Houghton Mifflin Company.

zipper sections 22 to permit ready folding of the zipper sections 22 one upon another in a generally fan fold manner It will be understood, of course, that each of the zipper assembly sections 22 may be as long as desired and that the hinge areas 21 may be as long as desired. . . .

At each end of each of the connecting hinge areas 21 there is desirably an end seal convergence connection 24 transition from the total thickness of the associated zipper section 22 for neat accommodation of the mass of zipper profile material displaced in the heat sealing process involved in fashioning the hinges.

Tilman '689 also states that the integral hinges "comprise flattened heat seals" (col. 4, line 51) and that the zipper sections have hinge pieces and end seals "merging toward said hinge pieces" (col. 4, lines 67-68). A representative Tilman '689 seal is shown in Figures 3 and 4.

Appellants argue (main brief, page 3) that products produced by the prior art method known as "spot sealing" do not include "certain claim elements" specified in claim 1. More particularly, appellants assert that the claimed compression molded segment seal is structurally distinguishable from the prior art by providing a fused section that is substantially flattened without distorting the ribs of the first and second profile strips outside the fused section, and that the claimed compression molded segment seal is distinguishable by performance from the prior art in that the claimed segment seal maintains an airtight seal.

A prior art reference need not expressly disclose each claimed element in order to anticipate the claimed invention. *See Tyler Refrigeration v. Kysor Indus. Corp.*, 777 F.2d 687, 689, 227 USPQ 845, 846-47 (Fed. Cir. 1985). Rather, if a claimed element is inherent in a prior art reference, then that element is disclosed for purposes of finding anticipation. *See Verdegaal Bros., Inc. v.*

Union Oil Co., 814 F.2d 628, 631-32, 2 USPQ2d 1051, 1052-54 (Fed. Cir.), *cert. denied*, 484 U.S. 827 (1987).

It is well settled that the burden of establishing a *prima facie* case of anticipation resides with the Patent and Trademark Office (PTO). *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). When relying upon a theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *See Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Patent App. & Int. 1990).

Figures 3 and 4 of Tilman '689 show a seal made in accordance with the teachings thereof. As can be discerned from a review of these figures, the seal includes a broad flat fused area 21, denominated a hinge area, with no apparent voids or air spaces therein. The seal includes a short transition area between the area 21 and ribbed portions of the profile strips where the ribs appear to smoothly merge into the flattened area 21 with no appreciable distortion of the ribs outside the fused area 21. The seal is made by a pair of *heated* complementary sealing heads 20 (col. 2, lines 65-66; Figure 1). Based on this disclosure, and the shape of the finished seal, it logically appears that the seal is formed through the application of heat and pressure. The showing in Figures 1 and 3-5, the manner in which the hinge area is formed (spot sealing using a pair of *heated* complementary

cooperating heads), and the commonly accepted definitions of the word “seal”⁵ provide a reasonable basis for considering that the area 21 is airtight, at least under some conditions. Accordingly, the Tilman ‘689 disclosure is sufficient to reasonably support the examiner’s determination that the spot seal 21 of Tilman ‘689 possesses the structural and performance limitations recited in the last paragraph of claim 1 so as to establish a *prima facie* case of anticipation and thereby shift the burden to appellants to prove that the seal of Tilman ‘689 does not possess such features. *Compare In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977); *In re Ludtke*, 441 F.2d 660, 664, 169 USPQ 563, 566-67 (CCPA 1971).

IV. Appellants’ Declarations

The declarations executed by inventors Donald K. Wright and Christopher Pemberton on April 15, 2002 have been carefully considered. For the reasons set forth below, these declarations are not persuasive that the spot seal 21 of Tilman ‘689 lacks the structural and performance limitations recited in claim 1.

The first declaration of inventors Wright and Pemberton (declaration I) is directed to comparative testing between “Com-pac plastic bags having fasteners compression molded to the bag walls and five other sets of plastic bags using ultrasonic sealers to apply spot seals to seal the ends of the fastener strips to the bag walls” (paragraph 1). Declaration I is supported by Exhibit I, a

⁵See footnotes 3 and 4, *supra*.

table of vacuum test results, and a video tape of the testing⁶. According to appellants, declaration I “demonstrate[s] that spot seals leak air and compression molded seals maintain an airtight seal when subjected to a differential pressure of about 15 Hg” (main brief, page 6).

First, while Exhibit I of declaration I does tend to show that “bags having fasteners compression molded *to the bag walls*” (paragraph 1; emphasis added) maintain an airtight seal when subjected to a differential pressure of about 15 Hg, claim 1 is directed to a reclosable fastener profile assembly wherein a first *profile strip*, a second *profile strip*, and the *ribs* of the first and second profile strips are fused *to each other* by compression molding to form an airtight seal. In that declaration I does not establish that the Com-pac plastic bags of appellants’ comparative testing comprise fastener profile assemblies wherein a first profile strip, a second profile strip, and sealing ribs of strips are fused together by compression molding, a proper nexus between the Com-pac plastic bags of appellants’ comparative testing and the claimed invention has not been established.

Second, the prior art bags used in the comparative testing of declaration I “all us[ed] *ultrasonic* sealers to apply spot seals to seal the ends of the fastener strips to the bag walls” (paragraph 1; emphasis added). It is not clear that an ultrasonic sealer would produce the same kind of seal as the one shown in Figures 3-4 of Tilman ‘689, which is made by complementary cooperating *heated* sealing heads. Accordingly, a proper nexus between the “other sets of plastic

⁶The members of this merits panel have viewed the video tape.

bags” of appellants’ comparative testing and the zipper structure of Tilman ‘689 has not been established.

Third, it is fundamental that during prosecution before the PTO, a term in a claim is to be given its broadest reasonable interpretation (*In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997)), unless appellants have clearly given it a special meaning in the specification (*Multiform Desiccants, Inc. V. Medzam Ltd.*, 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1433 (Fed. Cir. 1998)). In the present case, appellants’ specification provides no specific definition of the term “airtight,” thereby allowing a broadest reasonable interpretation to be attributed thereto. In addition, claim 1 does not set forth the conditions (e.g., pressure differential⁷ and duration of time) under which the claimed compression molded segment maintains an airtight seal, and appellants’ testing demonstrates that the seals of comparative samples #1, #2, #4 and #5 are “airtight” for pressure differentials of up to 13 Hg. On the basis of these considerations, we think it is both fair and reasonable to comprehend the seal 21 of Tilman ‘689 to be an “airtight seal” within the broad meaning of that term as used in claim 1.

⁷According to the note on pages 1 and 2 of Exhibit I, the comparative testing described therein utilized a Haug vacuum tester “designed to pull a vacuum up to 30 hg,” and “simulates packages that during shipment witness atmospheric pressure drops such as trucks shipping over mountains and shipping by cargo planes.” We see no reason to limit the meaning of the term “airtight” as used in appellants’ claims to such pressure differentials.

In view of the above, declaration I is accorded relatively little weight, and does not establish that spot seals like the seals of Tilman '689 leak air whereas the claimed compression molded seals are "airtight".

The second declaration of inventors Wright and Pemberton (declaration II) comprises the opinions of Mr. Wright and Mr. Pemberton to the effect that the performance of the claimed reclosable fastener profile assembly is distinguishable from the performance of prior art reclosable fastener profile assemblies.

Our current court of review has provided the following guidance with respect to weighing opinion evidence. Opinion evidence must be taken into consideration, but the lack of factual support for the opinions proffered may render the evidence of little probative value. While the opinions of a party having a direct interest in the outcome may be less persuasive than the opinions of a disinterested party, such opinions cannot be disregarded for that reason alone. *See Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294, 227 USPQ 657, 665 (Fed. Cir. 1985), *cert. denied*, 475 U.S. 1017 (1986).

The thrust of the opinions expressed by declarants Wright and Pemberton in declaration II is that the compression molded seals of the claimed invention are "airtight" because of the way they are formed (e.g., heating the plastic over "a sufficient period of time" to "gradually form the flattened seal" with the plastic "filling all voids" while at the same time "not distorting (stretching, elongating or changing the shape of) the portions of the fastener profiles which are outside the

flattened seal” (paragraph 8)⁸), whereas “spot sealing” and “heat sealing” (which declarants regard as terms of art (paragraphs 10 and 11) do not “ordinarily” produce “airtight” seals because the seals “[are] simply crushed and melted leaving voids through the seal” (paragraph 11).

In a nutshell, declaration II is long on generalities but short on details and factual support for the opinions expressed therein. For example, there is no factual support for the opinions expressed in paragraphs 9 and 10 that the terms “spot sealing” and “heat sealing” are terms of art⁹, nor is there any attempt made to explain precisely what the terms “spot sealing” and “heat sealing” may mean. Further, notwithstanding that the term “air tight” is used throughout the declaration in contrasting the performance of seals formed by compression molding with seals made by spot sealing or heat sealing, declarants Wright and Pemberton have not explained under what conditions (e.g., pressure differential) a seal may be considered to “air tight” as opposed to not air tight. In addition, the opinions offered by Mr. Smith and Mr. Pemberton in paragraphs 11 and 12 that spot sealing and heat sealing “does not ordinarily” produce an air tight seal” suggest that these sealing techniques do not inevitably result in seals that are not airtight. Moreover, we also note that whereas declarants

⁸We note in passing that the appealed claims, for the most part, do *not* call for a seal as described in paragraph 8 of declaration I.

⁹Appellants assert on page 2 of the reply brief that declarants Wright and Pemberton state in paragraph 8 of declaration I that the phrase “compression molding” also is “a term of art,” with the inference being that one of ordinary skill in the art would understand the phrase “compression molding” as having a meaning beyond that conveyed by the plain meaning of those words. Appellants’ assertion is incorrect; Mr. Wright and Mr. Pemberton simply do not state in paragraph 8 (or anywhere else) that “compression molding” is “a term of art.”

proffer the unsupported opinion in paragraph 11 that seals formed by spot sealing are simply crushed and melted leaving voids through the seal, no similar opinion is expressed with respect to seals formed by heat sealing. Thus, even when the opinions expressed by Mr. Wright and Mr. Pemberton in declaration II are viewed in a light most favorable to appellants, it does not follow that seals made by heat sealing cannot be void free and airtight, as reasonably appears to be the case in Tilman '689¹⁰.

In view of the above, declaration II is accorded relatively little weight, and does not establish that the claimed reclosable fastener profile assembly having a compression molded segment seal is airtight whereas seals like those of Tilman '689 are not airtight.

Having weighed appellants' evidence against the Tilman '689 reference cited by the examiner against claim 1, it is our conclusion that appellants' evidence is insufficient to overcome the *prima facie* case of anticipation established by the examiner. It follows that we will sustain the standing rejection of claim 1 as being anticipated by Tilman '689. We will also sustain the standing rejection of claims 4-10, 18 and 19 as being anticipated by Tilman '689 since, as noted earlier, appellants have not argued these claims with any reasonable specificity apart from claim 1.

¹⁰As noted above, the seals of Tilman '689 are formed by *heated* sealing heads (col. 2, lines 65-66) and, as illustrated in Figures 3-5, do not appear to have voids in the seal area 21.

V. The Anticipation Rejections Based on Van Erden and Tilman '537

We will not sustain either of these rejections. Independent claims 1 and 18 require the profile strips and ribs thereof to be fused together, with the fused section being substantially flattened to form an airtight seal, without distorting the ribs of the profile strips outside the fused section. The cursory disclosures of Van Erden and Tilman '537 regarding spot seals 47 and 23, respectively, do not provide us with a reasonable basis for concluding that the seals of these references inherently have the features called for in claims 1 and 18. Hence, Van Erden and Tilman '537 do *not* establish a *prima facie* case of anticipation. It follows that we will not sustain the standing anticipation rejections of the appealed claims based on either Van Erden or Tilman '537.

VI. Conclusion

The rejection of claims 1, 4-10, 18 and 19 as being anticipated by Tilman '689 is affirmed.

The rejection of claims 1, 4-10, 18 and 19 as being anticipated by Van Erden and the rejection of claims 1, 4-10, 18 and 19 as being anticipated by Tilman '537 are reversed.

Since at least one rejection of each of the appealed claims is affirmed, the decision of the examiner finally rejecting the appealed claims is affirmed.


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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

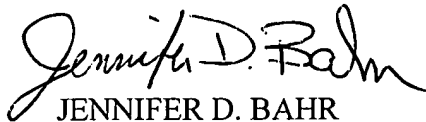
AFFIRMED



NEAL E. ABRAMS
Administrative Patent Judge



LAWRENCE J. STAAB
Administrative Patent Judge



JENNIFER D. BAHR
Administrative Patent Judge

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